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Dated 1/2/2008

Reply to Office Communication of 12/27/ 2007

page 2 of this paper consisting of a total of 17  
sheets.

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Remarks begin on page 17 of this paper.

The proposed amendments to the claims 1-2 will  
replace all prior versions of the claims 1-2 in said  
application.

The proposed amendments to the claim 1 to be sent to  
Primary examiner Dr. Lori A. Clown by the fax of  
December 12, 2007 comprising:

Claim 1 (currently amended): A multiparameter  
method of ~~screening for the diagnosis, the prevention~~  
~~or the treatment evaluating disease risk, disease~~  
~~cause, therapeutic target, and therapeutic efficiency~~  
of atherosclerosis-related coronary heart disease  
(CHD) or stroke comprising;

defining the disease as atherosclerosis-related  
CHD or stroke; ~~or other cardiovascular disease;~~

defining the normal as free from said disease;

defining the following parameters as  
atherosclerotic parameters consisting of c =

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the Low-density lipoprotein (LDL) concentration parameter in mg/dL or  $c$  = the C-reactive protein (CRP) concentration parameter in mg/L,  $p$  = the blood systolic pressure parameter in mmHg or  $p$  = the blood diastolic pressure parameter in mmHg,  $f$  = the heart rate parameter in  $s^{-1}$ ,  $a$  = the radius parameter along arterial radius in cm,  $T$  = the temperature parameter of blood plasma in  $^{\circ}C$ ,  $\alpha$  = the angle parameter between gravity and the mean velocity of blood fluid in arterial vessels in degree and  $z$  = the axial position parameter of diffusion flux along the inner wall in the axial direction of arterial vessels in cm, called the diffusion length parameter;

<sup>values</sup> ~~measuring, for an individual having the measured~~  
<sup>of values of disease,</sup> said atherosclerotic  
<sup>parameters,</sup> ~~using~~ the following expressions: for an individual

$$J = A c^{\frac{11}{9}} (v^3 D^{16})^{\frac{1}{27}} \left( \frac{g \cos \alpha + f u}{z} \right)^{\frac{2}{9}} \quad (1.1)$$

or

$$J = B c^{\frac{11}{9}} p^{\frac{1}{3}} T^{\frac{16}{27}} a^{\frac{2}{3}} f^{\frac{2}{9}} z^{-\frac{2}{9}} \quad (1.2)$$

and

$$J = E c^{\frac{11}{9}} D^{\frac{16}{27}} z^{-\frac{2}{9}} (\cos \alpha)^{\frac{2}{9}} \quad (1.3)$$

wherein  $J$  = the mass transfer flux in  $10^{-3}$

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$g/(cm^2s)$ , A, B and E = the constants of conversion factors,  $v$  = the eddy velocity of blood fluid in arterial vessels in cm/s,  $u$  = the mean velocity of the blood fluid in cm/s,  $D$  = the diffusion coefficient in  $cm^2/s$ , and  $g$  = the gravitational acceleration in  $cm/s^2$ ;

~~the measuring, for an individual not having the~~  
~~OK disease, the normal values of said not the~~  
~~atherosclerotic parameters;~~  
disease

determining the disease risks yielded by the difference between said measured values and said normal values of said atherosclerotic parameters;

adding all said disease risks together yields  
containing a total risk of said disease;

determining a disease risk level containing said total risk of said disease;

~~selecting an atherosclerotic risk factor related to an atherosclerotic parameter that is the greatest contribution to said total risk of said disease so as to result in said risk~~

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factor as a primary therapy target of said disease;

selecting a greater flux between the LDL mass transfer flux and the monocyte mass transfer flux so as to result in said greater flux as a primary cause in said disease;

selecting a greater concentration level between the LDL level in serum and the CRP level in blood plasma so as to result in said greater level as a secondary therapy target of said disease;

determining a relative ratio between currently said total risk and previously said total risk so as to yield said relative ratio as a therapeutic efficacy of said disease;

repeating above-mentioned said methods until said disease risk level is reduced to a normal level for said individual who requires the therapy to prevent or to treat atherosclerosis-related CHD or stroke;

above-mentioned said methods are written as an executable computer program named the MMA.exe,

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or another name, to be installed into a general purpose digital computer device to accomplish said methods; and

~~to output outputting a result of said methods  
said total disease risk, disease cause,  
therapeutic target and therapeutic efficiency  
to a display or a memory or another computer on  
a network, or to a user or a display.~~

The proposed amendments to the claim 2 to be sent to Examiner Mr. Jason M. Sims by the fax of December 10, 2007 comprising:

Claim 2 (Currently amended): A method as in claim 1, wherein the nine disease risks are yielded by the differences between the measured values and the normal values of the nine atherosclerotic parameters, *wherein:*  
~~said method comprising the steps of:~~ ^ ^

*Substituting* ^ a measured value,  $c_m$ , in mg/dL, of the individual's LDL concentration in human serum which is determined using a medical technique for ^ ^ measuring the concentration of blood constituents or said  $c_m$  is determined by the physician, into eq. 1.1 yields  $T_m = H c_m^{1/4}$  where

$$H = A C_v^{3/10} \left( \frac{2 \cos \alpha + \sin \alpha}{2} \right)^{2/5}$$

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substituting  $\wedge$  a normal value,  $c_n$  in mg/dL, of said LDL concentration is determined by the physician or said  $c_n = 100$  mg/dL for adult, into 1.1 yields  $J_n = H c_n^{1/5}$

calculating  $\frac{J_m - J_n}{J_n}$ , where  $J_m$  yielded by substituting said  $c_m$  into said equation (1.1) and  $J_n$  yielded by substituting said  $c_n$  into said equation (1.1), yields:

$$R_1 = \left( \frac{J_m}{J_n} \right)^5 - 1 = \frac{J_m^5 - J_n^5}{J_n^5} \quad (1)$$

~~substituting said  $c_m$  and said  $c_n$  into the following expression (1) where  $c_m \geq c_n$  and~~

calculating (1) yields the disease risk  $R_1$  caused by the LDL concentration parameter related to the atherosclerotic risk factors being an elevated LDL concentration in human serum, high-fat diet, hypercholesterolemia or other risk factors that increase said LDL concentration;

substituting  $\wedge$  a measured value,  $C_m$  in mg/L, of the individual's CRP concentration in human blood plasma, which is determined using a medical technique for measuring the concentration of blood

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constituents or said  $C_m$  is determined by the  
physician, into 1.1 yields  $J_{m2} = H C_{m2}^{1/4}$  where  $H = A C_v^{3/16} D^{1/2} \left( \frac{3 D_v A + R^2}{2} \right)$   
 $\wedge$

substituting a normal value,  $C_n$  in mg/L, of said CRP  
 $\wedge$  concentration and an equivalent factor,  $F$ , are  
determined by the physician wherein  $F = \left( \frac{D_v}{D_l} \right)^{1/4}$ ,  
 $\wedge$

$D_v$  = the CRP diffusion coefficient and  $D_l$  = the  
LDL diffusion coefficient or said  $C_n = 1.0$  mg/L  
for adult and said  $F = 0.66$ ,  
into eq. (1.1) yields  $J_{n2} = H C_{n2}^{1/4}$  and  
 $\wedge$

calculating  $\frac{J_{m2} - J_{n2}}{J_{n2}}$ , where  $J_{m2}$  yielded by  
 $\wedge$

substituting said  $C_m$  into said equation (1.1)  
and  $J_{n2}$  yielded by substituting said  $C_n$  into  
said equation (1.1), yields:  
 $\wedge$

$$R_2 = F \left( \left( \frac{C_m}{C_n} \right)^{1/4} - 1 \right) \frac{J_{m2} - J_{n2}}{J_{n2}} \quad (2)$$

substituting said  $C_m$ , said  $C_n$  and said  $F$  into the  
following expression (2) where  $C_m \geq C_n$  and  
 $\wedge$

calculating (2) yields the disease risk  $R_2$   
caused by the CRP concentration parameter  
related to the atherosclerotic risk factors  
being an elevated CRP level in human blood